

Q Can you explain ASPECT RATIO?

A

ASPECT RATIO:

The term Aspect Ratio just means the relationship of the number of pixels in the WIDTH to the number of Pixels in the HEIGHT.

It's basically a fraction broken down to lowest term.

For instance:

1920 X 1080.... divide that down to it's lowest term and you get

16 units wide and 9 units height.

16:9

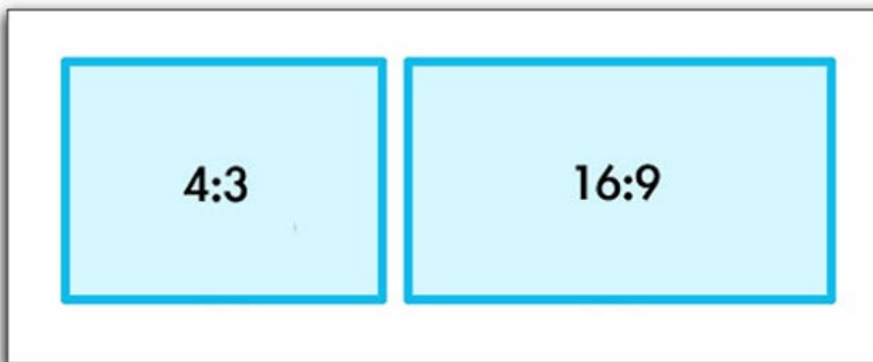
If you don't believe me divide 1920 by 120 (=16)

divide 1080 by 120 (=9)

There are a number of different [aspect ratios](#)/

http://en.wikipedia.org/wiki/Aspect_ratio_%28image%29

sizes you could work at , although for this class you should usually just use either "4:3" or "16:9" .



Five common aspect ratios



640 x 480
800 x 600
1024 x 768
1600 x 1200
1828 x 1332
2048 x 1556
1280 x 960

basically the same as classic aspect ratio of 1.33 for 35mm



(still photography aspect ratio for 35 mm film)



1280 x 720
1920 x 1080

16:9 is increasingly common aspect ratio for film/television work



1.85:1 is standard "wide screen" film aspect ratio, very similar to HDTV 16:9 aspect ratio



True Wide Screen Film aspect ratio

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So for instance... if working in a "4:3" aspect ratio, but you wanted your original project to be captured at a higher resolution you could use a size such as 1280 x 960 or 1600 x 1200, which are both more or less the same "4:3" aspect ratio as 640 x 480, so when you export the project to 640 x 480 the images will downscale nicely into the 640 x 480 frame.

You might want to save the bigger size files for yourself.. for your archive of work.. but for online classes the smaller size is better considering upload and download times for everyone.

I will be more interested in seeing that files are delivered at 24FPS. Your files should be under 1000 pixels wide.. but not tiny (not 320 pix wide)

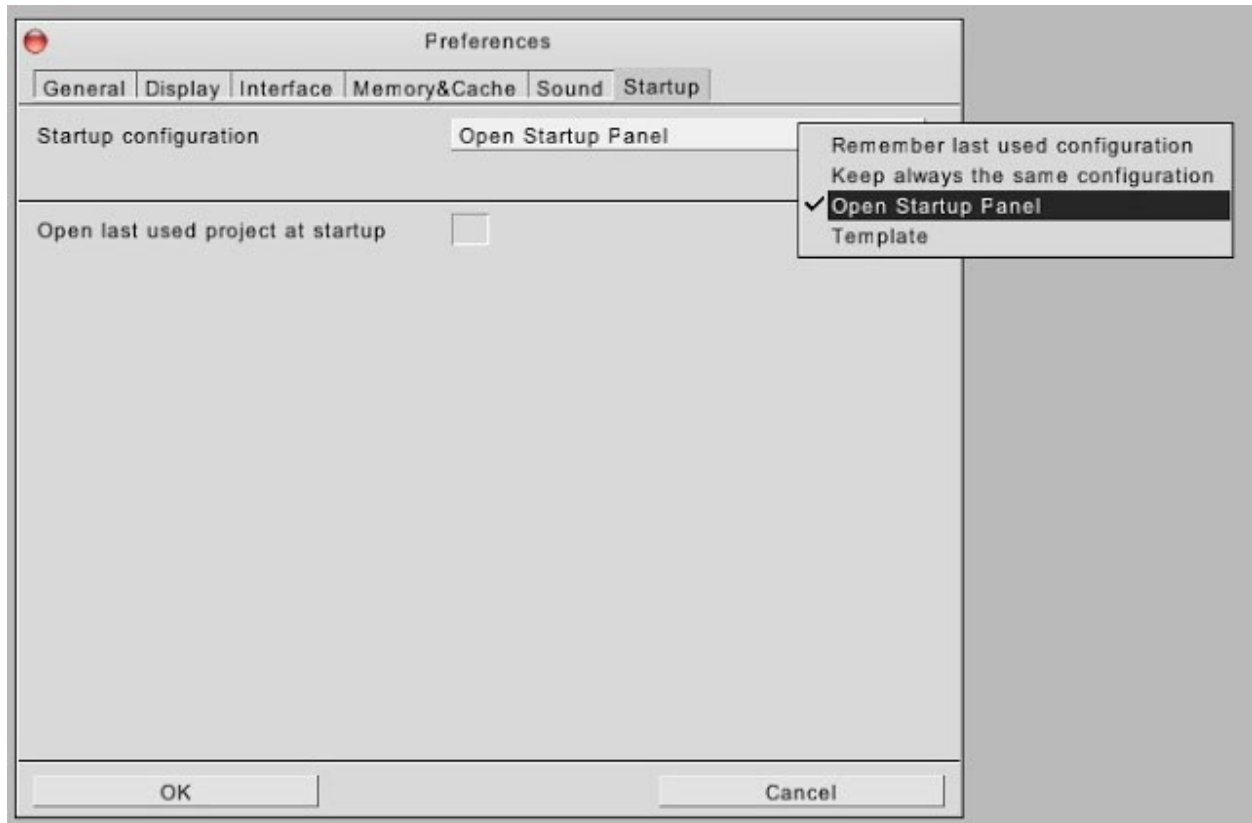
Make sense?

When you start TVPaint you should see the **Start Up Screen** . If you don't see Start Up Screen at the beginning and TVPaint just automatically opens up to a default project setting you may need to go to the

Edit menu> **PREFERENCES** (or click keyboard shortcut Shift + D) to bring up the Preferences .

Go to the last tab -- Start Up -- and select >"Start Up Panel" from the menu options:

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This will set it so that every time you open TVPaint it will open the Start Up Panel. OR if you know that you will *ALWAYS* use the same Project settings (size , frame rate, etc.) you could choose the option "Keep always the same configuration", but I prefer to have the Start Up Panel each time.

When you start a new TVPaint project , the **Start Up Screen** looks like this:



This would be to shoot a project sized at 640 x 480 resolution (which is a **"4:3" aspect ratio**)

- Width = 640 , Height = 480
- Field = Progressive
- Pixel AspectRatio = 1.000 (square)
- Frame Rate = 24.000
- Start (frame) = 1

➤ Click **OK**.

Now , if you wanted to... you could choose a different resolution from the menu in the Start Up Panel (click where it says "Custom") . There is a wide range of pre-set project sizes.



For instance if you wanted to shoot your original Project in a wide **"16:9" aspect ratio** you could choose HDTV from the menu , size 1080 , which would make your project size 1920 x 1080 :

Like this:

- HDTV 1080 = Width: 1920 x Height: 1080
- Field = Progressive
- Pixel Aspect Ratio= 1.000
- Frame Rate = 24.000
- Start (frame) = 1

➤ Click **OK**

So this would make your original TVPaint Project size HD diensions:

1920 x 1080

It's ok to *SHOOT* (or start) at the larger resolution such as 1920 x 1080 (or 1280 x 720) , BUT

>when you **EXPORT** the animation to a .MOV or .AVI file to upload to the class discussion board you should downscale it to a smaller size such as 640 x 360 (to keep the same "16:9" aspect ratio as 1920 x 1080) or 640 x 480 (if you are working at a "4:3" aspect ratio or if you want to display your project with "letterbox" black bars) . (Like this)

